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**A new subspecies of *Colias alpherakii* STAUDINGER, 1882
from Uzbekistan**

(Lepidoptera, Pieridae)

by

TÖNU KESKÜLA

received 10.IV.1997

A small series of *Colias alpherakii* STGR. from Tashkurgon Pass in Chakchar Range, southern part of Uzbekistan, was caught in the summer of 1995. The caught sulphurs are clearly different from all the known subspecies of this species: sspp. *alpherakii* STAUDINGER, 1882, *roschana* GRUM-GRSHIMAILO, 1893, *kohibaba* WYATT & OMATO, 1966, and *usmatica* JU. JU. STSHETKIN, 1990. I am going to name the new subspecies and give its description:

Colias alpherakii tashkurgonica subsp. nov.

Holotype ♂: Uzbekistan, Kashkadarya prov., Chakchar Range, Tashkurgon Pass, 2900–3150 m, 07.VII.1995, T. KESKÜLA leg.

Allotype ♀: Uzbekistan, Kashkadarya prov., Chakchar Range, Tashkurgon Pass, 2950 m, 29.VI.1995, T. KESKÜLA leg.

Paratypes: 13 ♂♂, 3 ♀♀, the same place as holotype and allotype, 29.VI.–10.VII.1995, T. KESKÜLA leg.

All the types are in the collection of T. KESKÜLA (Tartu).

Etymology

Tashkurgonica is a toponymic name derived from Tashkurgon Pass, a most remarkable feature in its type locality.

Description

Holotype. The wingspread of the forewings is 45 mm, the length of the forewing is 27 mm. The marginal field of the forewing is black with lighter spots of predominant colour and clearly visible. The marginal field's spots are large and little oblonged. The upper side of the forewings are whitish-green in colour. Wing veins are covered with grey scales. Similar grey scales are both on the costa and the base of the forewing. The wing fringes are coloured similarly to the wings. The discoidal spot is black and little oblonged. The under side of the forewing is similarly coloured as the upper side, whereas the base of the wings is slightly yellowish. The under side's discoidal spot is similar to that on the upper side and mistier. The submarginal field has two misty and black spots between veins Cu1 and Cu2, and veins Cu2 and An1. The costa of the wings has grey scales. The under side of the hindwings is of similar colour to the forewings. The base of the wings has greyish scales. The discoidal spot is brighter than the ground colour of the wing. In the submarginal field there are only two black and misty spots near to the costa of the wing. The marginal field has a weak black spot on the costa of the hindwing. Wing fringes are coloured similarly to the wings' ground colour. The

under side of the hindwings has a lot of greyish scales running between the base and the marginal field, the marginal field having less. The discoidal spot is small, but shiny with a diameter of about 1 mm.

Allotype. The wingspread of the forewing is 51 mm, the length of the forewings is 29 mm. Upper sides of the wings are bright, whitish. The rest of the wing's pattern is the same as in the holotype, except for the submarginal field of the hindwing, which reaches the narrow black jagged zone from vein R to vein Cu2. The hindwing has no black marginal field present. Paratypes. ♂♂: wingspread of forewings is 44–47 mm, length of forewings is 25–27 mm. ♀♀: wingspread of forewings is 45–52 mm, length of forewings is 25–29 mm. Paratypes have similar colour and pattern as the holotype and allotype.

Differential diagnosis

Colias a. tashkurgonica subsp. nov. is clearly different from the *C. a. alpherakii* STGR., *C. a. roschana* GR.-GR. and *C. a. kohibaba* WYATT & OMATO in the wing's colour, which is greyish-greenish without yellowish tone. It is similar to the subspecies *usmatica*, but is a lot brighter and has less black colour. The black marginal field of *C. a. usmatica* STSHETKIN has smaller bright spots.

The specimens of *C. a. tashkurgonica* subsp. nov. occurred at an altitude of 2800–3000 m on mountain meadows, where the larval foodplant *Astragalus* spec. sect. *aegacantha* grows. In addition to this species there was a diversity of butterflies at that locality, e.g. *Muschampia nobilis* STAUDINGER, *Thymelicus alaicus* FILIPJEV, *Parnassius staudingeri* A. BANG-HAAS, *Colias erate* ESPER, *Colias wiskotti* STAUDINGER, *Metaporia leucodice* EVERSMANN, *Thersamonia solskyi* ERSCHOFF, *Turanana cytis* CHRISTOPH, *Polyommatus venus* STAUDINGER, *Melitaea turkestanica* SHELJUZHKO, *Melitaea maracandica* STAUDINGER, *Polygonia undina* GRUM-GRSHI-MAILO, *Chazara enervata* ALPHERAKY, *Libythea celtis* LAICHARTING.

Acknowledgements

The author expresses his sincere gratitude to Mr. SVEN SALO (Estonia, Tartu), who determined the probable larval foodplant of this subspecies at the Kashkurgon Pass. My special thanks also to Mrs. TIINA KESKÜLA (Estonia, Kiviõli), who made corrections to the text.

Explanation of colour plate IIb (p. 197):

Fig. 1: *Colias alpherakii tashkurgonica* subsp. nov., holotype ♂, Uzbekistan, Kaskadarya prov., Chakchar Range, Kashkurgon Pass, 07.VII.1995.

Fig. 2: *Colias alpherakii tashkurgonica* subsp. nov., allotype ♀, same place as holotype, 29.VI.1995.

Fig. 3: *Colias alpherakii alpherakii* STGR., ♂, Tadjikistan, Sw-Alai, Kok-Su valley, 3750–3800 m, 29.VII.1981.

Fig. 4: *Colias alpherakii roschkana* GR.-GR., ♂, Tadjikistan, Central Pamir, Tangmas valley, ca. 3500 m, 6.VII.1982.

address of the author

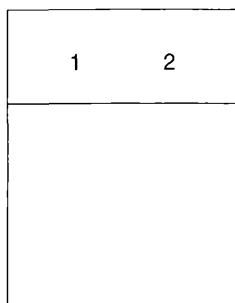
TÕNU KESKÜLA
Tartu University, Ülikooli 18
Võru Street 55d-1, EE-2481 Tartu-1, Estonia

Colour plate IIa

KESKÜLA, T. & J. LUIG: Phenology and distribution of the Clouded Apollo (*Parnassius mnemosyne* (LINNAEUS, 1758)) in Estonia, with the description of a new subspecies from south-eastern Estonia (Lepidoptera, Papilionidae). – *Atalanta* **28** (1/2): 17–20.

Fig. 1: *Parnassius mnemosyne viidaleppi* subspec. nov., ♂

Fig. 2: *Parnassius mnemosyne viidaleppi* subspec. nov., ♀.



Colour plate IIb

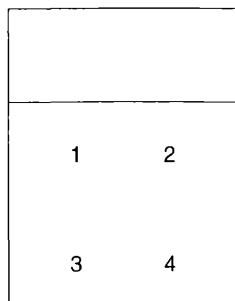
KESKÜLA, T.: A new subspecies of *Colias alpherakii* STAUDINGER, 1882 from Uzbekistan (Lepidoptera, Papilionidae). – *Atalanta* **28** (1/2): 33–34.

Fig. 1: *Colias alpherakii tashkurgonica* subspec. nov., holotype ♂, Uzbekistan, Kaskadarya prov., Chakchar Range, Kashkurgon Pass, 07.VII.1995.

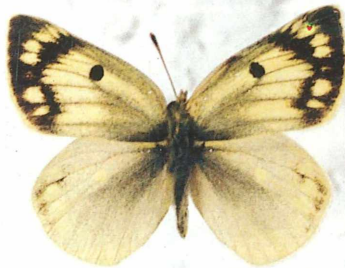
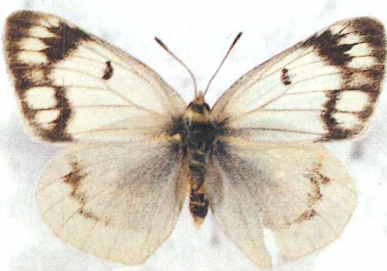
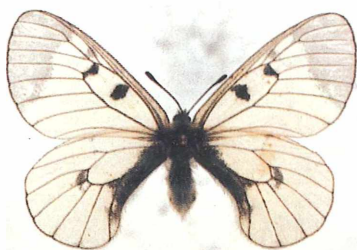
Fig. 2: *Colias alpherakii tashkurgonica* subspec. nov., allotype ♀, same place as holotype, 29.VI.1995.

Fig. 3: *Colias alpherakii alpherakii*, ♂, Tadjikistan, Sw-Alai, Kok-Su valley, 3750–3800 m, 29.VII.1981.

Fig. 4: *Colias alpherakii roschkana*, ♂, Tadjikistan, Central Pamir, Tangmas valley, ca. 3500 m, 6.VII.1982.



Colour plate IIa/b



Colour plate III

SALA G. & M. BOLLINO: A contribution to the knowledge of the Papilionidae of Rhodes island (Lepidoptera: Papilionidae). – *Atalanta* **28** (1/2): 43–47.

Fig. 1: *cerisy*-biotope near Lindos.

Fig. 2: *cerisy* while feeding near Moni Artamiti.

Fig. 3: *Arist. guichardii*.

Fig. 4: *Ar. parvifolia*.

Fig. 5: *cerisy*-♀, near Embonas.

Fig. 6: *cerisy*-♂, yellow form, near Embonas.

Fig. 7: *cerisy*-♂, red form, near Embonas.

Fig. 8: *machaon* caterpillar, melanic habitus.

Fig. 9: *cerisy* caterpillar, near Embonas.

Fig. 10: *cerisy* caterpillar, near Pythagorion, Samos Island.

1	2
3	4
5	6
7	8
9	10

Colour plate III

